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The College Board Review

NEWS AND RESEARCH OF THE
COLLEGE ENTRANCE EXAMINATION BOARD

VOL. 1, NO. 1

PRINCETON, NEW JERSEY

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A BINDER FOR THE "REVIEW"

Many persons will find it convenient to file their copies of THE COLLEGE BOARD REVIEW in a loose-leaf binder. A well-constructed, attractive binder, designed especially for the REVIEW, is obtainable from the College Entrance Examination Board (P.O. Box 592, Princeton, N.J.) at cost, for \$2.00. This binder is 10 inches high and 9 1/4 inches wide; it will fit into nearly all book shelves. The "backbone" of the binder bears the title, THE COLLEGE BOARD REVIEW.

VALIDITY OF C.E.E.B. PLACEMENT TEST IN FRENCH

Studies at Harvard and Radcliffe

BY HENRY S. DYER
Harvard University



At the close of the spring term, 1944-1945, 73 students at Harvard and Radcliffe, enrolled in fourth-term French (French Cb), were given the College Entrance Examination Board's French Placement Test. (This test is equivalent to the Board's regular entrance examination in French.) The purpose of giving the Placement Test was to find out how well the students' scores on this test agreed with their final grades in the course. It seemed important to have this information, in view of the fact that the language requirement at Harvard and Radcliffe may be met *either* by obtaining a final grade of C or better in French Cb *or* by securing a score of 594 or better on the French Placement Test. This study furnishes evidence on the comparability of these two criteria for meeting the language requirement in French.

SUMMARY OF CONCLUSIONS

The conclusions of the study may be stated at once:

1. The agreement between the test scores and final grades in the course is

(Continued on page 12)

THE COLLEGE BOARD REVIEW

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College Entrance Examination Board

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RECENT PUBLICATIONS

The following publications have been issued by the Board since October 1, 1946:

BULLETIN OF INFORMATION FOR 1946-1947. This bulletin includes information concerning examination procedures, descriptions of the tests, and sample examination questions. May be had upon request from the College Entrance Examination Board, Post Office Box 592, Princeton, N.J.

ANNUAL HANDBOOK—1947: TERMS OF ADMISSION TO THE COLLEGES OF THE COLLEGE ENTRANCE EXAMINATION BOARD. Ada Comstock Notestein, General Editor. Price \$1.50 (subject to 25% discount for educational institutions, which pay \$1.13 a copy). Orders should be sent to the College Entrance Examination Board, 425 West 117th Street, New York 27, N.Y.

FORTY-SIXTH ANNUAL REPORT OF THE EXECUTIVE SECRETARY, 1946. Requests for copies should be addressed to the College Entrance Examination Board, 425 West 117th Street, New York 27, N.Y. There is a charge of twenty-five cents per copy for this Report.



BLACKSTONE

PROFESSOR GEORGE W. MULLINS
*Executive Secretary of the College Entrance
Examination Board, 1936-1946*

As Executive Secretary, Professor Mullins successfully guided the activities of the College Entrance Examination Board through a difficult and strenuous decade. The Board is indebted to him not only for his administrative skill, but also for his progressive leadership in the field of college admission and placement. Under Professor Mullins' leadership the Board has made revolutionary changes in line with modern developments in testing. At each stage in the Board's development Professor Mullins explored the paths that lay ahead, and presented the alternatives to the Executive Committee and the Board in such fashion that decisions in the best interests of the Board members and of the candidates were readily reached. Professor Mullins' friendly and generous spirit has pervaded all of the Board's work. We are fortunate now to have his counsel and direction as Chairman of the Executive Committee, to which post he was elected at the October meeting of the Board.

"THE COLLEGE BOARD REVIEW," SUCCESSOR TO THE C.E.E.B. "NEWS BULLETIN"

New College Board Publication to Appear Three Times a Year

The present issue of THE COLLEGE BOARD REVIEW marks the first appearance of the successor to the old NEWS BULLETIN of the College Entrance Examination Board. (The last issue of the NEWS BULLETIN appeared in September 1943.) Like the NEWS BULLETIN, the REVIEW has as its primary purpose the dissemination of pertinent information to college admissions officers, secondary-school principals, and other interested persons. A few differences between the old and the new publications may be noted.

FEATURES OF THE "REVIEW"

The new COLLEGE BOARD REVIEW is to be more inclusive than the previous NEWS BULLETIN. In particular, it is anticipated that the REVIEW will carry a larger proportion of research notes or articles; this is in keeping with the Board's present policy of giving increased emphasis to research. In addition, it is hoped that a more graphic account of the Board's work can be presented; the coated paper stock used for the REVIEW is, of course, better adapted for the publication of

photographs than the coarser paper of the old NEWS BULLETIN. The REVIEW is scheduled to appear three times a year, in the fall, winter, and spring; the NEWS BULLETIN was published only twice a year. Like the previous publication, THE COLLEGE BOARD REVIEW will carry notices regarding dates of examinations, notices of Board publications, reports of meetings of the Board, reports of conferences sponsored by the Board, and accounts or explanations of Board practices and policies.

COMMUNICATIONS INVITED

THE COLLEGE BOARD REVIEW does not aim to communicate in one direction only. Notes and comments on the work of the Board are solicited from all interested individuals. Especially valuable and especially sought are reports on research touching any of the Board's tests, or reports based on close and extensive observation of the Board's system of testing. Communications should be addressed to DR. HERBERT S. CONRAD, EDITOR, The College Board Review, P.O. Box 592, Princeton, N.J.

In Brief . . .

Sample achievement-test questions are now included in the BULLETIN OF INFORMATION. In order that all applicants may have the opportunity to become familiar with the types of tests they plan to take, the BULLETIN OF INFORMATION now provides sample questions for the achieve-

ment tests as well as for the Scholastic Aptitude Test. Twenty-two pages of the new BULLETIN are devoted to descriptions of tests, sample questions, and sample answer sheets. The BULLETIN also contains the schedule of tests, directions for filing applications, information con-

cerning examination reports, rules for conduct of the tests, general advice to candidates, and lists of the established examination centers.

Requests for copies of the BULLETIN OF INFORMATION should be sent to the College Entrance Examination Board, P.O. Box 592, Princeton, N.J. The BULLETIN is available without charge to anyone who is interested in the Board's tests.

Objective section is included in English Composition Test. The April test in English Composition this year contained, for the first time, a section of objective questions designed to test familiarity with the proper use of idiom and of standard writing techniques. In the case of the April series, the reduction of the essay material from 60 to 40 minutes will allow better grading of that portion of the test than would otherwise be possible, in view of the record number of students electing the English test.

The innovation was made after an experimental testing program (conducted by the Board in five colleges) indicated that scores on objective material of the kind used in April correlated at least as highly with instructors' ratings of ability in English Composition as did grades on the traditional essay questions. The study, which involved over 300 students in thirteen freshman classes, was made under the direction of Dr. Scott Elledge of Harvard University, a member of the Committee of Examiners in English, who has supervised the reading of the English papers during the Board's test-scoring periods. The addition of the objective section, which measures a slightly different set of abilities from those tested by the writing exercises, is expected to raise both the reliability of the examination and its validity as a predictor of college work in English.

Mathematics candidates will take verbal aptitude test. To meet the long-felt need for a verbal aptitude score for candidates taking the Comprehensive Mathematics Test (CMT), the examination program for mathematics candidates has been revised to include a one-hour form of the verbal section

of the Scholastic Aptitude Test (SAT). This has been made possible by a reduction in the time allotted to the mathematics questions, which formerly had a time limit of two hours.

The result of the change is that all candidates who register for one of the morning tests (SAT or CMT) will take both a verbal section and a mathematical section. Scores on the two verbal sections will be comparable, but the two mathematical sections are, as in the past, entirely different. The SAT mathematical score is an aptitude measure, and indicates the student's ability to reason quantitatively, using only the basic elementary facts of algebra and plane geometry. The CMT score is a measure of achievement, indicating the thoroughness of the student's knowledge of the subject matter normally taught in a four-year secondary school course in mathematics. It should be noted that the new form of the CMT is equivalent in coverage to the previous form.

Merger of non-profit testing agencies is discussed. At the October meeting of the Board, considerable time was devoted to a discussion of the "Preliminary Report of the Committee on Testing, to the President, Carnegie Foundation for the Advancement of Teaching." Three members of the committee — President Conant of Harvard (chairman), President Day of Cornell, and President Wriston of Brown—attended the meeting as representatives of their respective institutions and presented informal analyses of the implications of the committee's report. The report advocated a merger of non-profit testing organizations (including the College Board, the Cooperative Test Service, the Graduate Record Office, and the Educational Records Bureau) to form one national testing agency. Discussion of the proposal touched on the financial feasibility of attaining the stated objectives of the commission; the possibility that these objectives might be met more readily through a degree of integration short of a total merger of the existing agencies; the desirability of an affiliation between the proposed agency and the American Council on Education, as sug-

gested in the report; and the place of the secondary schools in a national testing organization. It was unanimously voted that a special committee be appointed to consider the place of the College Entrance Examination Board in the field of testing, with particular reference to the plan proposed by the Carnegie Foundation's Committee on Testing. The special committee has now prepared a report, which will receive consideration by the Executive Committee, and be given further consideration at the April meeting of the Board.

College representatives visit Princeton. Representatives from eight women's colleges (Barnard, Mount Holyoke, Radcliffe, Smith, Vassar, Wellesley, Wells, and Wheaton) were guests at the Princeton office of the Board on February 10th and 11th. Group discussion centered around the problems faced by college admissions offices. The main topics covered were the difficulties created by the excessive emphasis in many schools on test scores, the need for an achievement-free measure of quantitative aptitude, the possibility of having the Board precombine test scores (and perhaps also rank-in-class) to give the best prediction of college work, and the desirability of the Board's serving as a clearing-house and source of technical assistance in connection with studies relating to the prediction of college success.

The interchange of ideas on these subjects was most helpful to all concerned, and it is anticipated that this will be the first in a series of meetings for the purpose of integrating the efforts of the Board with the needs of various school and college groups.

Carnegie Foundation grants funds for study of veterans. At the request of the Carnegie Foundation for the Advancement of Teaching, the College Entrance Examination Board has undertaken a study of the comparative scholastic achievement in college of veteran and non-veteran students. The purposes of the study are: (1) to learn whether or not veterans are academically superior to non-veteran students; (2) to investigate the factors, including those re-

lated to veteran status, which may be predictive of academic success in college; and (3) to study the effects of the lowering, through benefits of the "G.I. Bill," of economic barriers to higher education.

Board constructs examinations for service schools. Within the past fifteen months the Board has prepared for the first time entrance examinations for the three service schools, the U.S. Naval Academy at Annapolis, the U.S. Military Academy at West Point, and the U.S. Coast Guard Academy at New London. Test content is planned in consultation with the professional staffs of the three institutions. Examination papers for Annapolis and West Point candidates are returned to the Board for scoring, and reports and interpretations of the scores are then sent to the academies. Item analysis and validity studies are regularly made for all of the service examinations.

Board gives qualifying test for naval college training programs. At the request of the Navy the Board prepared the aptitude test which was given last January to candidates for the two recently initiated naval college training programs. Forty-two thousand candidates competed for the 3,000 positions in the Naval Reserve Officer Training Corps and Naval Aviation College Programs; 645 examination centers were established for the 38,000 civilian candidates, and 666 centers for the 4,000 candidates from enlisted personnel of the Navy. Consideration is being given by the Navy to test scores and other qualifications in selecting final winners from the candidates who made high scores on the test.

New volume is published on forecasting college achievement. Many readers of THE COLLEGE BOARD REVIEW will find interesting and valuable the new volume by A. B. Crawford and P. S. Burnham, entitled *Predicting College Achievement* (Yale University Press, 1946). The volume presents results of application of the Yale Battery and tests of the College Entrance Examination Board, and discusses current problems and advances in the field of collegiate aptitude testing.

Board adopts new Articles of Association and By-laws. At its October 1946 meeting, the Board adopted new Articles of Association and By-laws. Under the new Articles the representation of secondary-school associations has been considerably widened. Annual dues for member institutions are reduced from \$100 to \$50, while the dues for educational associations are now \$25 per annum. A new office created by the revised

Articles of Association is that of Research Director. The addition of a research director is in keeping with the Board's increasing emphasis on a strong and continuing research program. This emphasis is further reflected in the provision for a standing committee on research and development, which will review and make recommendations concerning studies which have been or should be undertaken.

OFFICIALS OF THE COLLEGE ENTRANCE EXAMINATION BOARD

The following officials were elected at the October 1946 meeting of the College Entrance Examination Board:

Chairman of the Board:

Professor EDWARD S. NOYES, Yale University

Vice-Chairman of the Board:

President MILDRED McAFEE HORTON, Wellesley College

Executive Committee:

Professor GEORGE W. MULLINS, Barnard College, *Chairman*

Dean SAMUEL T. ARNOLD, Brown University

Mr. FRANK H. BOWLES, Columbia University

Doctor EUGENE F. BRADFORD, Cornell University

Dean MARGARET T. CORWIN, New Jersey College for Women

Doctor CLAUDE M. FUESS, Andover, Mass.

Doctor RICHARD M. GUMMERE, Harvard University

Dean RADCLIFFE HEERMANCE, Princeton University

Vice-President ARCHIBALD MACINTOSH, Haverford College

Dean KARL G. MILLER, University of Pennsylvania

Mrs. HAROLD S. OSBORNE, The Spence School, New York, N.Y.

Professor B. ALDEN THRESHER, Massachusetts Institute of Technology

Doctor HOWARD D. WOOD, Hope High School, Providence, R.I.

Custodians:

President ALAN VALENTINE, University of Rochester

Vice-President ARCHIBALD MACINTOSH, Haverford College

Doctor CLAUDE M. FUESS, Andover, Mass.

Following the October meeting the new Executive Committee announced the appointment of the following administrative officers of the Board, who have responsibility for the testing services and research performed by the operating offices:

Director and Treasurer

Assistant Director

Research Director

Secretary

Mr. HENRY CHAUNCEY

Mr. RICHARD H. SULLIVAN

Doctor HAROLD O. GULLIKSEN

Doctor WILLIAM W. TURNBULL

A SPECIAL ENGLISH EXAMINATION FOR FOREIGN STUDENTS

By EDITH M. HUDDLESTON

Test Construction Department, College Entrance Examination Board

In response to requests from the Department of State and various colleges, an examination in English for foreign students is being developed experimentally by the College Entrance Examination Board. The aim of the examination is to determine whether foreign applicants for admission to colleges in the United States have sufficient knowledge of English to enable them to undertake college work in this country. It is to be, insofar as possible, a test only of basic minimum command of the language and not a test of intelligence; in other words, a very poor student whose native tongue is English might make a high score on the examination, while a brilliant foreign student would make a high, average, or low score, depending on the amount of his preparation in English. The understanding of both oral and written English will be tested. Phonograph records have been prepared for the oral tests.

The examination will be supplemented by a non-verbal intelligence test, which will give a common basis for comparison of all students. It is felt that these tests will prove a valuable supplement to the selection methods regularly employed in the admission of foreign students to American colleges. There is an unprecedented number of such applicants at the present time, and since only a small proportion can be admitted it is particularly important to select those who are most likely to succeed. The tests will be administered in examination centers in all parts of the world.

ADMINISTRATION AT OVERSEAS CENTERS

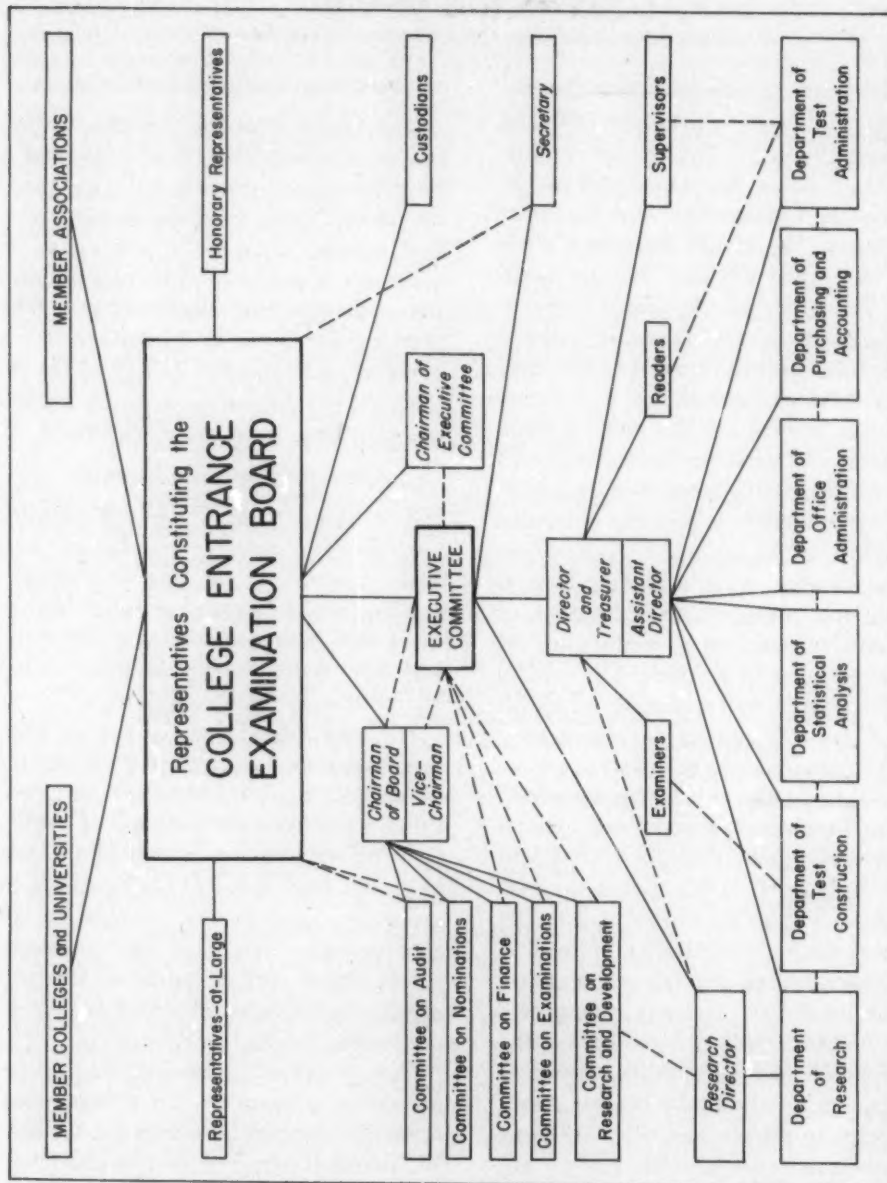
The trial edition of the examination has been developed in cooperation with the Department of State, and is being administered experimentally at ten overseas centers in April; it will again be given experimentally at several orientation centers in this country in July. The first regular overseas administration is planned for September 1947, and the results of this test will be available for the use of college admissions officers.

CONTENT OF TRIAL EDITION

The trial edition of the test contains the following sections: vocabulary; sentence completion; elementary grammar; reading comprehension; scientific vocabulary (for students planning to enter the scientific field); pronunciation; aural comprehension; and essay.

It is understood that the special English examination for foreign students will be subject to detailed study and continuous revision. The program of validation includes administration of the test to groups with different backgrounds, in order to ascertain its fairness to all groups, and a study of the predictive efficiency of various parts of the test against the criterion of actual success in academic work in this country.

College officials who wish further information concerning the program are invited to communicate with Dr. William W. Turnbull, Head of Test Construction Department, College Entrance Examination Board, P.O. Box 592, Princeton, N.J.



PLAN OF ORGANIZATION OF THE COLLEGE ENTRANCE EXAMINATION BOARD. (Solid connecting lines indicate lines of appointment; dashed lines indicate close working relationships. Italic letters are used for individuals, roman for committees or groups.)

ORGANIZATION OF THE COLLEGE ENTRANCE EXAMINATION BOARD

By RICHARD H. SULLIVAN

Assistant Director, College Entrance Examination Board

In the first post-war year the College Entrance Examination Board, like many colleges and universities, has experienced significant changes. Most obvious of the reasons for change has of course been the greatly increased number of students seeking admission to colleges. Another important factor has been expansion of the Board's research projects and special testing services. The resulting increase in the Board's work necessitated a revision of internal organization, in the interests of improved efficiency.

PRESENT ORGANIZATION

It may be helpful at this time to set forth the present organization of the Board and to name the key individuals with whom school and college officials are most likely to have contact. As the chart on the opposite page indicates, the College Entrance Examination Board is in fact an association of colleges and universities and of certain educational (chiefly secondary school) associations. Each member institution designates its own representatives who, together with a small number of representatives-at-large and honorary representatives, constitute the Board in its semi-annual meetings in New York.

In practice the Board delegates its authority on all except important policy matters to an elected Executive Committee, to three elected officers (who serve *ex officio* as members of the Executive Committee), and to the three Custodians who supervise the investment of reserve funds. At the meeting in October the Board elected the following officers: *Chairman*, Professor Edward S. Noyes of Yale; *Vice-Chairman*, President Mildred McAfee Horton of Wellesley; *Chairman of the Executive Committee*, Professor George W. Mullins of Barnard.

The Chairman of the Board appoints all standing committees, which are shown on the chart.

Following the October meeting the new Executive Committee announced the appointment of the following administrative officers of the Board, who have responsibility for the operating offices: *Director and Treasurer*, Mr. Henry Chauncey; *Assistant Director*, Mr. Richard H. Sullivan; *Research Director*, Dr. Harold O. Gulliksen; *Secretary*, Dr. William W. Turnbull.

OPERATING DEPARTMENTS

Members of the operating staff are divided among six departments, the names of which perhaps sufficiently indicate the functions assigned to each. Dr. Gulliksen, as Research Director, is in charge of the Research Department. Dr. Turnbull, Secretary of the Board, is also head of the Test Construction Department. Other department heads are: Dr. Ledyard Tucker, Statistical Analysis; Mr. Joseph E. Terral, Test Administration; Mrs. Catherine G. Sharp, Office Administration; and Mr. John P. Gorman, Purchasing and Accounting.

In preparing questions for the Board's examination papers, the Test Construction staff works closely with the Examiners. A Chief Examiner and Associate Examiners from school and college faculties are appointed by the Director for each subject in which an achievement test is offered. In administering the examinations the Test Administration staff has the cooperation of the Supervisors, who take charge of the examination centers. All tests are scored by the Test Administration staff, except the English Composition and the actuarial mathematical tests; these are scored by Associate Readers, under the direction of a Chief Reader for each test. All scoring is done in Princeton.

EFFECT OF SEQUENCE OF TOPICS IN PHYSICS COURSES ON SCORES IN THE APRIL PHYSICS TEST*

Sequence of Topics Found a Negligible Factor

BY WILLIAM W. TURNBULL

Test Construction Department, College Entrance Examination Board

Most students who take College Board examinations do so in April, before they have completed the courses on which the tests are based. In some subjects, notably the sciences, the syllabi followed in different schools vary to such an extent that the portion of the course not covered by the date of the test is considerably different from school to school. It is, therefore, not possible in all subjects to limit the test content to material which all students may be expected to have studied.

SPECIAL NEED FOR STUDY OF PHYSICS TEST

The situation is especially obvious in the case of physics. In nearly all schools, mechanics and heat are the first topics covered in the physics course. Thereafter, the topics of light, sound, and electricity are covered, but the order is not standardized. In April, therefore, some students have studied light but not sound or electricity, or they have covered electricity but not sound or light, and so on through the various combinations possible. This situation has been recognized by the Committee of Examiners in charge of the preparation of the examinations. The Examiners have based the April test on the whole course, but have attempted so to adjust the number and difficulty of the questions on sound, light, and electricity that any pair of equally intelli-

gent, equally well-taught students, each unfamiliar with a different part of the course, would achieve the same test score.

Early in 1946 the Committee of Examiners in Physics designed an investigation to check the assumption of fairness to students who follow different course sequences. The method was to send a questionnaire to the heads of the physics departments of 265 secondary schools, asking them which topics they had completed, which they had partially completed, and which they had not begun by the date of the April test. It was then possible to study the test papers of the 1742 students from those schools, in order to discover what differences might be ascribed to differences in the particular topics or in the number of topics covered in the physics course by the date of the test.

FINDINGS

It was found that by early April most students (over 90%) had covered the topics of mechanics and heat, approximately half had covered electricity, half had covered sound, and a little over a third had completed light. A total of 364 candidates had studied physics in their junior year, and so had covered all topics when they took the test.

The most interesting comparisons were possible in the case of the main group of

* Copies of the study abstracted here are available on request.

1282 candidates who were studying physics during the year in which they took this test and all of whom had completed mechanics and heat by April. Since mechanics and heat had been studied by the whole group, the scores made on that section of the test by various sub-groups constituted a check on their comparative proficiencies. The general finding was that, regardless of the particular topics which a given group of students had studied before the test, the correspondence between their proficiency (judged by performance on mechanics and heat) and their total test score was excellent. For example: the comparatively small group of students who were studying physics in their senior year and who had covered all topics by the date of the test showed the highest average score on the total examination. However, the fact that they had a similarly high average score on mechanics and heat (on which topics they had probably spent even less time than the bulk of the candidates, who were proceeding more slowly through the course) indicates that their high total test score results from superior proficiency on the topics covered, rather than from the fact that they had covered more topics than the other candidates. The study does not indicate the actual causes of the superior or inferior showing of any of the groups. A high score on the mechanics and heat section, for example, may indicate a superior group of students, unusually good teaching, special review (perhaps immediately before the test), an unusually heavy weighting of mechanics and heat in the curriculum, or any combination of these (and perhaps other) factors.

CONCLUSION

The most important conclusion to be drawn from this investigation is that there is no royal road to a high score on the physics test. The order in which the topics are taught has no effect on the scores made by the students on the April examination. There seems, moreover, to be no advantage in covering the whole course in the seven months prior to the April test; candidates who have taken courses organized in this manner do not make higher scores, relative to their ability, than do those who have taken courses arranged in the normal fashion. Teachers may feel free to set whatever course of study they feel has the greatest merit from the standpoint of education, with the assurance that the Board examination will not place their students at a disadvantage.

ADVICE TO STUDENTS

The examination which covers the entire course is, then, fair to all students. A disadvantage of covering the whole course in the April test is the fact, reported by some teachers, that the pupils often become disturbed and discouraged during an examination which contains unfamiliar material. The solution to this problem lies with the teachers themselves, who can tell their students in advance that the complete course will be covered in the test. The students should be assured that they are not expected to have studied all topics, and that they will be at no disadvantage as compared with other candidates. Students who are thus prepared for the kind of test they are to take will be in little danger of becoming unduly worried upon discovering questions on parts of the course which they have not yet reached.

Validity of C.E.E.B. Placement Test in French

(Continued from page 1)

gratifyingly high (the degree of relationship between the two is represented by a correlation coefficient of .83).

2. The two criteria for meeting the language requirement (test scores as against final grades in French Cb) are *not* comparable. It clearly requires more ability to achieve a score of 594 on the French Placement test than to secure a C grade in French Cb.

The evidence for these conclusions is presented below.

AGREEMENT BETWEEN TEST SCORES AND FINAL GRADES

Table 1 shows how the 73 students distributed themselves on test scores as compared to final grades.

TABLE 1
Relationship between C.E.E.B. French
Placement Test Scores and Final Grades
in French Cb

Test Score	Final Grade				
	A	B	C	D	E
650 and up	5	1			
600-649	5	7	6		
550-599	1	4	7	1	
500-549		3	7	5	
450-499			3	7	1
400-449		1	4	3	2
Total	11	16	27	16	3

The closeness of agreement may be observed by comparing the frequencies in each column which are enclosed in boxes with those outside the boxes. Ten of the eleven persons receiving an A in the course secured scores of 600 or better. Eleven of the sixteen persons with a B in the course scored between 550 and 650; only one B student scored above 650 as compared to five such students in the A group. In general, the large majority of the students in each column of Table 1 fall inside, rather than outside, the appropriate score area. The largest single discrepancy is that of the B student who scored below 450. The C group shows the greatest degree of variability in test scores. This may be due to the fact that the C men are commonly less well differentiated in the minds of the instructors; they constitute the large middle group of students whose work does not "stand out" as either excellent or inferior. It is of interest to note that all three of the E men received scores below 500.

Another way of expressing the relationship between scores and grades is through the coefficient of correlation. Table 2 gives product-moment correlation coefficients for each section of the course. The fact that the correlations are approximately the same in each section strengthens the inference that the amount of agreement observed is not a chance phenomenon; that is, it can be assumed with considerable confidence that, were

TABLE 2
Coefficients of Correlation between
C.E.E.B. French Placement Test Scores
and Final Grades in French Cb

Section	Number of Students	Correlation Coefficient
1	23	.82
2	27	.82
3	23	.83
Total group	73	.83*

* This correlation was secured after a correction had been made in the grades of the several sections to eliminate any variation in grading standards from one section to another.

the same comparison between scores and grades to be made on another group of French Cb students, the magnitude of the correlation coefficient would be approximately the same.

A correlation of the magnitude obtained means that about 70 per cent of the variation in students' grades can be estimated from the test scores. A part of the remaining 30 per cent which cannot be estimated arises from the unreliability of both the grades and the test scores. If this unreliability could be eliminated from both variables, the correlation would probably be in the neighborhood of .95,* a correlation signifying that there is little essential difference between the functions measured by the test and those measured by final grades. This remain-

* Estimated by the formula,

$$r = r_{12} / \sqrt{r_{11} r_{22}}$$

where the reliability of the test is assumed to be .95 and the reliability of the final grades .80. The reliability of the test was estimated for the present group from a reported reliability of .97.

ing difference probably represents certain instructional elements which are represented by the grades but which are not measured by the test. The present data are not sufficiently refined to warrant any inference as to what these unmeasured instructional elements may be. Several possibilities, however, suggest themselves. If a grade is affected by the dilatoriness with which a student hands in assignments, regardless of the quality of such work, the test score would not reflect the penalty. Similarly, if an instructor "shades" his marks in accordance with a student's effort, the test scores would not indicate the shading. Moreover, the nature of the test is such that it cannot reflect the excellence of the English in which a student may render translations from French into English, whereas it is altogether possible that such excellence may have some influence on the course grade.

THE FRENCH PLACEMENT TEST IN RELATION TO THE LANGUAGE REQUIREMENT

A number of years ago the French Department agreed that if a student obtained a score of 594 or better on the College Board French Test, he would be considered to have met the language requirement for the bachelor's degree. If the student achieved such a score on the entrance examinations, he was automatically excused from any further language study in college. On the other hand, if he fell short of 594 on the entrance examination, he was given the right to take the C.E.E.B. French Placement

Test (which is entirely comparable to the C.E.E.B. French Achievement Test administered as part of the entrance examination) any time up to the beginning of his junior year. The purpose of the present study is to determine the appropriateness of using a score of 594 on the French Placement Test in this way. The obtaining of a final grade of C or better in French Cb has for a considerable period been the most usual method by which a student with insufficient secondary school preparation has satisfied the language requirement in French, and for this reason it was decided to use final grades in French Cb as the criterion with which to compare scores on the French Placement Test.

Table 3 shows how the 73 students in French Cb are divided on the basis of a test score of 594. It is immediately obvious that no student who achieved 594

TABLE 3

Frequency with Which Students in French Cb Exceeded or Fell Short of 594 on the C.E.E.B. French Test

Final Grade	Students Scoring 594 or above		Students Scoring below 594		Total N
	N	%*	N	%*	
A	10	91	1	9	11
B	8	50	8	50	16
C	6	22	21	78	27
D			16	100	16
E			3	100	3
Total	24	33	49	67	73

* The per cent accompanying each frequency is based on the total in the right-hand column. Thus, 91% of those receiving an A grade obtained test scores at or above 594.

on the test received a grade below C in the course. From one point of view, then, 594 can be regarded as a "safe" critical point in the sense that any student who exceeds it is almost certainly as well able to read French as the student who gets a satisfactory grade in French Cb.

Another way of looking at the situation is to observe the median grade obtained by students at each grade level. Each median can be taken as approximately equivalent to a given grade. Table 4 gives the medians.

TABLE 4

Medians on the French Placement Test for Various Grade Levels in French Cb

Final Grade	Median
A	641
B	596
C	543
D	487
E	449

In Table 4 it will be observed that the score-equivalent of a C grade is 543. The inference seems clear that in general it is easier to meet the language requirement by getting a C in the course than by getting 594 on the test. The question arises whether the critical score of 594 is too high. It is not the purpose of this paper to argue the question one way or the other, but merely to present the sort of evidence upon which an informed decision can be made.

Essentially, what the administrative authorities require is a statement of the probability that a student with any given

score would have failed to attain a final grade of C. To secure such a statement, it is necessary to solve for each of several scores the regression equation:

$$\bar{Y} = b_{YX}X + K$$

where \bar{Y} is the grade* estimated from a given score, X is the score in question, b_{YX} is the raw regression coefficient of Y on X , and K is a constant.

In the present case the terms of the equation work out as follows:

$$\bar{Y} = -.0116 X + 9.1734$$

Having obtained several values of \bar{Y} , it becomes necessary to know the standard error of estimate† for each such value and to determine, from a table of the normal curve, the probability that a student whose predicted grade is \bar{Y} would actually drop as low as D in the course. The standard error of estimate based on the data obtained in this study is .6002. Table 5 lists the probabilities for a number of scores.

* Transmuted to numerical terms:

A = 1, B = 2, C = 3, etc.

† The standard error of estimate,

$$\sigma_{e..} = \sigma_y \sqrt{1-r^2}$$

where σ_y is the standard deviation of the grades and r is the correlation between scores and grades.

Table 5 indicates that if a student receives a score of 594 on the test, the chances are 2 in 100 that he would not make a satisfactory grade in French Cb.

TABLE 5

Probability of Receiving a Grade as Low as D in French Cb

Test Score	Probability of Getting a Grade of D
500	.41
550	.11
575	.05
594	.02
600	.02
625	.01

If this degree of certainty seems too high or too low, it is a simple matter to move up or down in the table until one finds the probability that accords with the educational policy of the institution.

It should be borne in mind that the figures given in Table 5 are based on a single sample of 73 students. Subsequent study of a later class, however, suggests that, even with a change of instructors in French Cb, the probability figures tend not to vary to any appreciable extent.

Change in registration rules. Announcement of an important change in registration rules for candidates taking tests of the College Entrance Examination Board will be found at the top of the next page.

CHANGE IN REGISTRATION RULES

Attention is especially drawn to the recent change in policy with regard to registration. For many years the Board has permitted candidates to register for an examination series at any time prior to the beginning of the series. *Beginning with the April 1947 tests, however, no applications received later than one week before the examination date will be considered.* This change will eliminate the practice of allowing candidates to register at the examination centers. The step was taken because of the serious difficulty of handling the growing number of late applications at a time when the Board's facilities are fully taxed by the huge volume of candidates who register on time. The penalty fee for registration later than three weeks before the tests are given will continue in force.

DATES OF EXAMINATIONS

The College Entrance Examination Board schedules four examinations each year: in April, June, August, and December. The following dates have been set for 1947 and 1948:

Saturday, April 12, 1947

Saturday, June 7, 1947

ADDED DATE: Wednesday, August 27, 1947

JANUARY 24, 1948 Saturday, December 6, 1947

REVISED DATE: Saturday, April 3, 1948

AUGUST 18, 1948 Saturday, June 5, 1948

Wednesday, August 25, 1948

The complete series of examinations is given on each examination date, with the exception of the Greek and Italian examinations which are now scheduled only for April 3, 1948.

The Board's BULLETIN OF INFORMATION, obtainable on request, gives detailed information concerning examination procedures.

